RESPONSE UNDER 37 C.F.R. § 1.111
U.S. Application No. 10/097,607

REMARKS

Review and reconsideration on merits are requested.

Claims 1-20 were pending at the time of rejections.

Prior art considered: US 2002/00668192 Moriyama et al (Moriyama); US 6,566,805 Tsai et al (Tsai); US 6,097,147 Baldo et al (Baldo); US 6,268,071 Yasukawa et al (Yasukawa).

The rejections:

Claim 1-20 under 35 U.S.C. § 103(a) over Moriyama in view of Tsai. Paragraph 3 of the Action.

Claim 1, 3, 4-12 and 14-20 under 35 U.S.C. § 103(a) over Baldo in view of Yasukawa, further in view of Tsai. Paragraph 4 of the Action.

The Examiner's reading of the prior art and the Examiner's application of the prior art is set forth in the Action in detail and will not be repeated here except as necessary to an understanding of Applicant's traversal, which is now presented.

The present invention can be compared with the references relied upon in tabular form as presented in the following Table 1.

Table 1. Comparison the present invention with references

	EL	Phosphorescent agent (light-emitting material)	Inert gas	Influence of oxygen	Oxygen conc.	Influence of water	Water conc.
The invention	O	O	O		O		O
Moriyama	O	O	O	O		O	
Tsai	O				O		O
Baldo	O	O					
Yasukawa	O		O			O	O

O: relevant

In summary form, and perhaps oversimplified, the Examiner's position on the art seems to be as follows:

Moriyama exactly discloses Applicant's subject matter, accept that Moriyama does not disclosure that the moisture concentration and the oxygen concentration are both 100 ppm or less.

With respect to Tsai, the Examiner considers that the skilled artisan would combine Tsai with Moriyama.

The Examiner then goes on to conclude that from column 3, lines 1-11, the skilled artisan would construct the EL device of Moriyama so as to maintain water and oxygen contents below 1 ppm.

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Baldo is cited as disclosing Applicant's claim 1 except for the use of an inert gas atmosphere for reducing moisture and oxygen concentration to 100 ppm or less.

To provide the missing disclosure, the Examiner first turns to Yasukawa and views Yasukawa as being directed to the same art and as teaching the use of an inert gas atmosphere to maintain moisture content below 100 ppm.

Tsai is cited with respect to reduced content of both oxygen and moisture.

The Examiner concludes that it would have been obvious to the skilled artisan to modify the EL device of Baldo by using an inert gas to maintain the concentration of moisture and oxygen below 100 ppm, from the secondary and tertiary references.

Traversal

Applicant first addresses the rejection over Moriyama in view of Tsai.

Main features of the present invention reside in the use of an inert gas having a specified concentration of oxygen and moisture, specifically for use with a light-emitting device comprising a light-emitting layer containing a phosphorescent compound. All of these elements of the present invention are recited in claim 1.

Turning to Moriyama, Moriyama discloses a light-emitting device comprising a light-emitting layer containing a phosphorescent compound. However, Moriyama is silent regarding the use of an inert gas which also has a specified oxygen concentration and a specified water concentration, and further does not teach such a specified inert gas for a sealing step which uses sealing parts as called for in claim 1. The Examiner, of course, admits that Moriyama is silent regarding the concentration of oxygen and water in the Moriyama inert gas atmosphere. However, Moriyama does disclose that the use of an inert gas removes gases including oxygen

(Paragraph [0058]) and contains a general teaching regarding the influence of water and oxygen. (Paragraphs [0019] and [0020]).

It is thus appropriate to turn to Tsai to see if Tsai remedies the defects of Moriyama. Applicant submits that Tsai does not remedy the defects of Moriyama, rather, Tsai merely discloses the controlling of the content of water and oxygen in an atmosphere in a process for making an organic EL device, and also discloses that the water content and oxygen content should be no more than 1 ppm. However, Tsai in no fashion, either expressly or inherently, suggest that there would be any benefit to going to a more complicated method based on the further use of an inert gas, i.e., Tsai does not reasonably suggest to one or ordinary skill in the art use and selection of an inert gas as the specific atmosphere to be used in the method of Moriyama or in the method of the present invention.

Accordingly, Applicant respectively submits that there is inadequate motivation to modify Moriyama in view of Tsai, given the lack of any suggestion or teaching to use the combination of the present invention.

Turning now to the rejection over Baldo in view of Yasukawa further in view Tsai, Baldo discloses that an organic EL device can contain a phosphorescent compound. Baldo does not disclose the use of an inert gas nor the water and oxygen concentration of an inert gas.

Yasukawa merely discloses an organic EL display filled with an inert gas and, in a closed space, the inert gas has a moisture content of 100 ppm or lower (Yasukawa, column 8, lines 63-67). The Examiner also relies upon Yasukawa as disclosing the desirability of avoiding oxygen penetration. The Examiner admits that Yasukawa does not teach the concentration of oxygen within the sealed atmosphere. To remedy this defect, the Examiner relies upon Tsai.

However, Yasukawa does not disclose the use of an inert gas having a specified concentration of both water and oxygen for a sealing step involving a sealing space of a light-emitting device as called for in claim 1 herein.

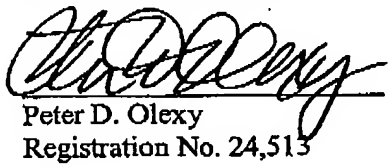
The Examiner simply relies upon Tsai as disclosing a water content and oxygen content of no more than 1 ppm. Applicant respectfully submits that Tsai does not provide any suggestion or motivation to modify the Baldo-Yasukawa combination because Tsai does not specifically or inherently disclose the use and selection of an inert gas as the atmosphere in the sense of present invention in combination with the specified water and oxygen contents claimed herein.

Withdrawal of all rejections and allowance is requested.

If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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